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Quark-Gluon Plasma: The Stuff of the Early Universe

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In its earliest, densest stages our Universe was an inhospitable place, filled with relativistic gases of every known particle. At temperatures above a trillion degrees Kelvin – roughly the first microsecond after the Big Bang – the Universe was dominated by the hadronic/QCD sector, and the properties of strongly interacting matter in this regime are now being studied experimentally using ultra-relativistic collisions between nuclei. In this talk we will review the basic framework used to describe the early thermal Universe, and discuss how recent results in nuclear physics may have a bearing on the Universe's evolution in its earliest history.